

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ERRATA SHEET
APRIL 13, 2005
ITEM NO. 7

TENTATIVE ADDENDUM NO. 5 TO
CLEANUP AND ABATEMENT ORDER
NO. 92-01
MISSION VALLEY TERMINAL
TENTATIVE ADDENDUM NO. 5, ORDER NO. 92-01

The changes/corrections are shown below in **highlighted** text. Deletions are indicated in **bold ~~strikeout text~~** and added language is indicated in **bold underlined text**.

ADDENDUM NO. 5 TO CLEANUP AND ABATEMENT ORDER 92-01:

1. Revise **Finding No. 5** as follows:

The milestone cleanup dates submitted by the Dischargers in the 2004 *Final Summary Report*, **off-property cleanup between 2015 and 2034**, are not aggressive enough to ~~protect and~~ restore the ~~designated water quality needed to protect existing and anticipated future~~ beneficial uses of the groundwater in a timely manner. The off-property pollution can be cleaned up ~~in a shorter time frame by the year 2013~~, if more aggressive cleanup methods are used.

2. Revise **Finding No. 6** as follows:

The groundwater pollution ~~associated with from~~ discharges at ~~and from~~ the MVT ~~are continuing threats to water quality and~~ must be investigated, monitored, contained, and cleaned up. A Quarterly Monitoring Program, a revised Corrective Action Plan **(CAP)**, and further soil and groundwater investigations are needed to ~~measure the~~ document the Dischargers' progress toward containment and to adequately assess the effectiveness of cleanup of the pollution. ~~Additionally, in order to address any new discharges of pollutants from the facility, the Dischargers must report all releases of pollutants from all systems that contain, store, and/or convey petroleum fuel products, wastes, liquids, or vapors. In addition to the investigation and monitoring requirements, more stringent spill reporting requirements are needed for MVT because releases from the tanks and associated petroleum fuel and waste conveyance systems are released directly to the soil and therefore, any release from these systems will be, or probably will be, discharged to the waters of the State.~~

3. Revise **Directive No. 3** as follows:

~~By December 31, 2013,~~ The Dischargers shall, as soon as practicable and no later than December 31, 2013, reduce concentrations of dissolved phase petroleum hydrocarbon waste constituents¹ ~~1~~ in the off property pollution area to attain background water quality conditions² 2. If cleanup to background water quality conditions is technologically or economically infeasible, the Dischargers shall propose alternative groundwater cleanup levels greater than background and provide the Regional Board with technical documentation supporting the alternative cleanup levels, including documentation that will allow the Regional Board to evaluate the proposed alternative cleanup levels in accordance with all the requisite considerations set forth in Title 23, Chapter 15, Article 5, Section 2550.4³ 3. Alternative cleanup levels shall be sufficiently stringent to ensure that all ground water in the affected water body will meet applicable water quality objectives needed to protect present and anticipated beneficial uses of waters, including both primary and secondary Maximum Contaminant Levels, and not result in water quality less than that prescribed in the ~~to levels that are equal to or less than applicable water quality objectives pursuant to the Water Quality Control Plan, San Diego Region (“Basin Plan”).~~

4. Revise **Directive No. 5** as follows:

~~By September 9, 2005, the~~ The Dischargers shall, as soon as practicable and no later than September 9, 2005, provide the Regional Board with a technical report ~~that contains~~ containing the following minimum elements:

1

Petroleum hydrocarbon waste constituents include, but are not limited to, benzene, toluene, xylene, oxygenate additives (e.g., MTBE), total petroleum hydrocarbons (TPH), and degradation products thereof (e.g. TBA).

2

“Background” means the concentrations or measures of constituents or indicator parameters in water or soil that have not been affected by waste constituents/pollutants from the Site.

3

23 CCR 2550.4 (c) provides that the Regional Board may establish a cleanup level for a constituent of concern that is greater than the background value of that constituent only if the Regional Board finds that it is technologically or economically infeasible to achieve the background value for that constituent and that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the cleanup level greater than background is not exceeded. In making this finding, the Regional Board will consider the factors specified in section 2550.4(d), results in site investigation reports, the updated Corrective Action Plan, a feasibility study required by this Order, monitoring data submitted by the Discharger(s) to support the proposed cleanup level greater than background, public testimony on the proposal, and any additional data or information.

- a.) A synthesis of results from all previous investigations of the on-property discharge(s) of ~~fuel-related pollutants~~ petroleum hydrocarbon waste constituents from ~~the MVT~~ bulk fuel conveyance and storage operations ~~at the MVT~~. This information shall also be used as a basis to develop and update a Site Conceptual Model (SCM) for pollution located within the MVT property boundaries. ~~of the MVT~~.
- b.) A feasibility study (FS) ~~of~~ to evaluate alternatives, including the cost and effectiveness of each alternative, to cleanup and abate the effects of the on-property from pollutants liquid, vapor and dissolve phase petroleum hydrocarbon waste constituents in soil and groundwater discharged from the operations at the MVT, to attain background water quality conditions⁴. If cleanup to background water quality conditions is technologically or economically infeasible, the Dischargers shall propose alternative groundwater cleanup levels greater than background and provide the Regional Board with their technical evaluation, including all the requisite considerations set forth in Title 23, Chapter 15, Article 5, Section 2550.4. Alternative cleanup levels shall be sufficiently stringent to ensure that all ground water in the affected water body will meet applicable water quality objectives needed to protect present and anticipated beneficial uses of waters, including both primary and secondary Maximum Contaminant Levels, and not result in water quality less than that prescribed in the Water Quality Control Plan, San Diego Region ("Basin Plan").
- c.) The feasibility study must clearly identify the ~~Identification of~~ Dischargers' preferred cleanup and abatement method(s), and any potential adverse impacts to the groundwater quality resulting from implementation of the proposed preferred method(s). upon the cleanup and abatement of waste beyond MVT.
- d.) A ~~P~~proposed schedule for timely cleanup of residual petroleum waste constituents in soil and ground water on-at the MVT property environmental pollution. The proposed cleanup method(s) must address liquid, vapor, and dissolved phase petroleum hydrocarbon pollutants in the soil and groundwater.
- e.) A monitoring and reporting program capable of assessing the effectiveness and progress of the Dischargers' cleanup and abatement at MVT.

The Dischargers shall begin implementation of the preferred cleanup method described in Directive ~~4-e~~ **5(c)** as soon as practicable and no later than November

⁴

"Background" means the concentrations or measures of constituents or indicator parameters in water or soil that have not been affected by waste constituents/pollutants from the Site.

9, 2005 following submission of the Feasibility Study (FS), unless otherwise directed in writing by the Regional Board.

5. Revise **Directive No. 7** as follows:

The Dischargers shall, as soon as practicable and no later than July 29, 2005, conduct submit a complete soil investigation report to defining the horizontal and vertical extent of petroleum pollutants in the subsurface soils beyond MVT and provide a complete technical report to the Regional Board by July 29, 2005. Soil sampling ~~should~~ shall include analysis of total petroleum hydrocarbons (TPH), analysis, with a reporting of the TPH composition by carbon number ranges (e.g., % of TPH in <C4, C4-C6, etc. ranges) and results from leachability testing (using Synthetic Precipitation and Leaching Procedure – SPLP, EPA Method 1312) of soil core samples to provide establish remedial soil cleanup levels that will be used to ensure improvements to groundwater pollution through time. The Results of this assessment should be combined with existing data from soil cores and cone penetrometer and laser-induced fluorescence testing CPT/LIF to verify the necessary drawdown of groundwater elevation needed to expose residual LNAPL in the soil. ~~By July 29, 2005, the Dischargers shall provide the Regional Board with a complete soil investigation report.~~

6. Revise **Provision No. 1** as follows:

Duty to Comply - The Discharger(s) shall properly manage handle, store, treat, and/or dispose of soils and ground water that contain waste constituents in accordance with applicable federal, state, and local laws and regulations. The handling, storage, treatment, or disposal of soil, sediment, and groundwater containing waste constituents shall not create conditions of pollution, contamination or nuisance as defined in California Water Code section 13050(m). The Discharger(s) shall, as required by the Regional Board, obtain, or apply for coverage under, waste discharge requirements or a conditional waiver of waste discharge requirements, for the removal of waste from the immediate place of release and for any discharge of the waste to (a) land for treatment, storage, or disposal or (b) waters of the state.

ATTACHMENT NO. 1 -- MONITORING AND REPORTING PROGRAM:

1. Revise **Section No. 2(a)** as follows:

All groundwater monitoring wells shall have samples collected and analyzed on a quarterly basis except the following wells, which will be gauged on a quarterly basis, and sampled and analyzed on an annual schedule:

Well Number	Well Number
M-2	R-48AM
M-6	R-48AD
R-4	S-4
R-6	S-5
R-7	S-9
R-8	S-10
R-45AS	S-13
R-45AM	
R-45AD	
R-48AS	

Monitoring wells that are sampled on an annual basis shall be sampled during the fourth quarter of each year.

All sample collection, storage, and analyses shall be performed according to protocols included in the U.S. Environmental Protection Agency (EPA), “SW-846: Test Methods for Evaluating Solid Wastes Physical/Chemical Methods” (Version 5, dated April 1998). All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Regional Board. Specific methods of analysis must be identified. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board. If analytical protocols other than U.S. EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review by the Regional Board prior to use.

All samples shall be analyzed using EPA method 8015 for total petroleum hydrocarbons (TPH) quantifying gasoline and diesel fuel fractions and EPA method 8260b for volatile organic compounds including benzene, toluene, ethylbenzene, xylenes, methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA) and all other fuel oxygenates.

2. Revise **Section No. 3(a)** as follows:

On a bi-weekly basis, measure total hydrocarbon concentrations and respirometry gases (O₂, CO₂, ~~N~~) at all soil gas monitoring points. This monitoring can be performed using properly calibrated field instruments, but if field instruments are used, the total hydrocarbon analysis should utilize ~~an~~ **Flame Ionization Detector (FID)** detector. Of that sample set, analyze a minimum of 25% of the higher concentration samples by **Gas Chromatography-Flame Ionization Detector (GC-FID)**. **Gas Chromatography-Mass Spectrometry (GC-MS)** analyses can be used in place of GC-FID whenever this monitoring program calls for GC-FID vapor or soil analysis, as long as GC-MS is used consistently for all analyses. Report the total hydrocarbon concentration and the composition in terms of carbon number ranges (e.g., % TPH in <C₄, C₄-C₆, etc. ranges). After the first samples have been analyzed, propose a consistent sample set of soil gas monitoring points that will be included in future analyses by GC-FID.

3. Revise **Section No. 3(g)** as follows:

At least every two years (during the Second Quarter), collect soil samples from the source zone to assess the effectiveness of the SVE remediation. Soil analysis must include TPH and TPH fraction/composition analysis (as expressed in carbon number ranges), and results from laboratory based leachate tests (using Synthetic Precipitation and Leaching Procedure ~~—~~(SPLP), EPA Method 1312) to compare with initial soil samples required in Directive No. 6 of CAO 92-01 Addendum No. 5.

4. Revise **Section No. 4(d)(4)** as follows:

Reports shall include an ~~E~~evaluation of effectiveness and assessment of performance. The second and fourth quarter Remediation Reports shall include a complete evaluation of the performance and effectiveness of the remediation system(s) at the site. The evaluation shall include a full report of system operations during the reporting period, and an assessment of whether the systems are adequately performing to meet all the cleanup and performance milestones required in Addendum No. 5 to Order 92-01 and this MRP. If the remediation is not progressing at a rate that will meet one of more of the required milestones; the report narrative shall clearly indicate that expectation and include recommendations for the necessary modifications/enhancements to the configuration and/or operation of the remediation systems.

SUPPORTING DOCUMENT NO. 4 -- TECHNICAL REPORT

1. Revise **Finding No. 7** as follows:

The City of San Diego's (City) plans to ~~use~~ develop the groundwater resources located downgradient of the ~~groundwater pollution from the MVT plume~~ for ~~use as a municipal drinking water supply~~ ~~public drinking water~~ by the year 2010, three years before even the most aggressive cleanup and abatement could be expected to reduce the concentration of waste constituents in the affected water body to levels consistent with water quality objectives for municipal supply. ~~In the event that~~ When the City builds and operates its proposed groundwater development project, ~~Dischargers should have a Drinking Water Well Protection Contingency Plan to ensure protection of water quality for drinking water~~ ~~water produced from the supply wells located downgradient of the discharger's pollution~~ ~~MVT plume may need to be treated to remove residual constituents, from discharges of petroleum hydrocarbon fuel waste at MVT, before the water can be used for drinking and municipal supply.~~

Basis: The Dischargers may be required to provide the Regional Board with a "Water Replacement Plan" under the authority of Water Code section 13304(h). The Drinking Water Well Protection Contingency Plan (Contingency Plan) is necessary to ensure that the City's water project is able to proceed as planned regardless of the progress made on cleanup and abatement of the existing off-property groundwater pollution. The required Contingency Plan will: 1) establish a groundwater monitoring network to monitor the pollution located directly upgradient of the City's production well(s); 2) Require implementation of an active interim cleanup method should the monitoring network indicate that the remaining pollution is threatening the quality of water produced from the City's well(s); and 3) include a plan to treat or replace the drinking water should the City's well(s) be impacted by the Dischargers' pollution. **As stated in Directive no. 9 of the Addendum, once a public or private water supply well has been installed downgradient of the Dischargers' off-property pollution, the Regional Board will notify the Dischargers to prepare the Contingency Plan. The tentative Addendum requires Once notified of the supply well installation, the Dischargers to shall provide the Regional Board with the Contingency Plan within 60 days. of notification by the Regional Board that a drinking water production well will be installed in the vicinity of the MVT pollution.**